

RELEASED

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DESIGN CONSIDERATIONS

DESIGN NOTE:
Example text for informational design notes.

DESIGN NOTE:
Example text for critical design notes.

DESIGN NOTE:
Example text for cautionary design notes.

LAYOUT NOTE:
Example text for critical layout guidelines.

Decawave			
Title:	DWM1001		
Page Contents:	[01] - COVER PAGE.SchDoc	Checked by:	JK.TDK.AI
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DWM1001

(Block Diagram)

Page 3

Page 3

BT Radio

Page 4

DW1000
(UWB)

Page 5

Power supply

Page 6

LIS2DH12TR
(Accelerometer)

Page 3

DEBUG/SWD

CORE MCU (nRF52)

Page 3

Edge Pins

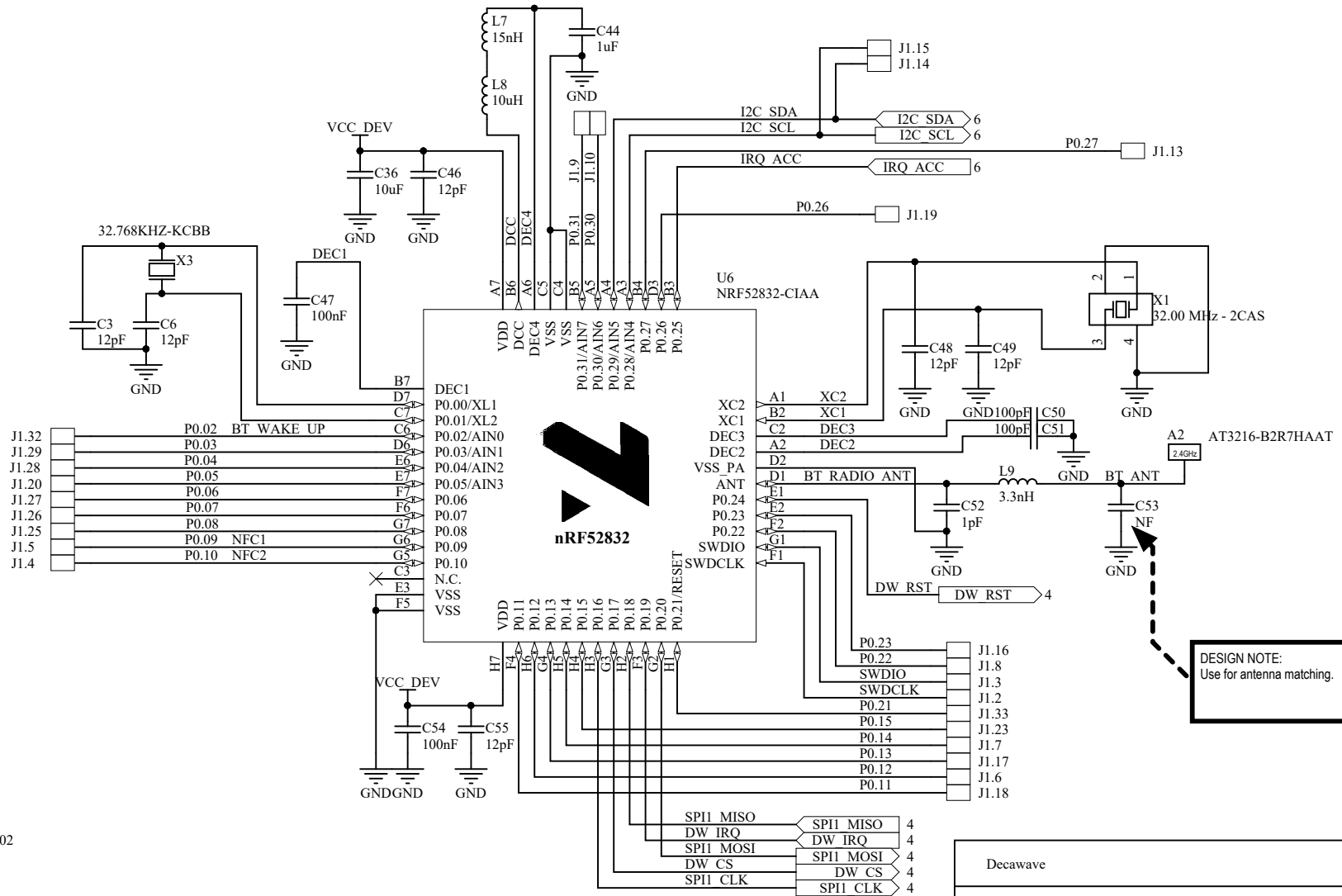
Castellation

J1.1	GND	GND	J1.34
	SWD_CLK	RESETn	
	SWD_DIO	BT_WAKE_UP	
	GPIO_10	GPIO_2	
	GPIO_9	GPIO_3	
	GPIO_12	SPIS_CS _n	
	GPIO_14	SPIS_CLK	
	GPIO_22	SPIS_MOSI	
	GPIO_31	SPIS_MISO	
	GPIO_30	SPIO_8	
	GND	GND	
	VCC	GPIO_15	
	GPIO_27	GPIO_0	
	I2C_SDA	GPIO_1	
	I2C_SCL	UART_TX	
	GPIO_23	READY	
J1.14	GPIO_13	UART_RX	J1.15

Castellated pitch : 1.0mm

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Core MCU



DESIGN NOTE:
Use for antenna matching.

Decawave			
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Page Contents: [03] - CORE MCU.SchDoc			
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1

2

3

4

A

A

B

B

C

C

D

D

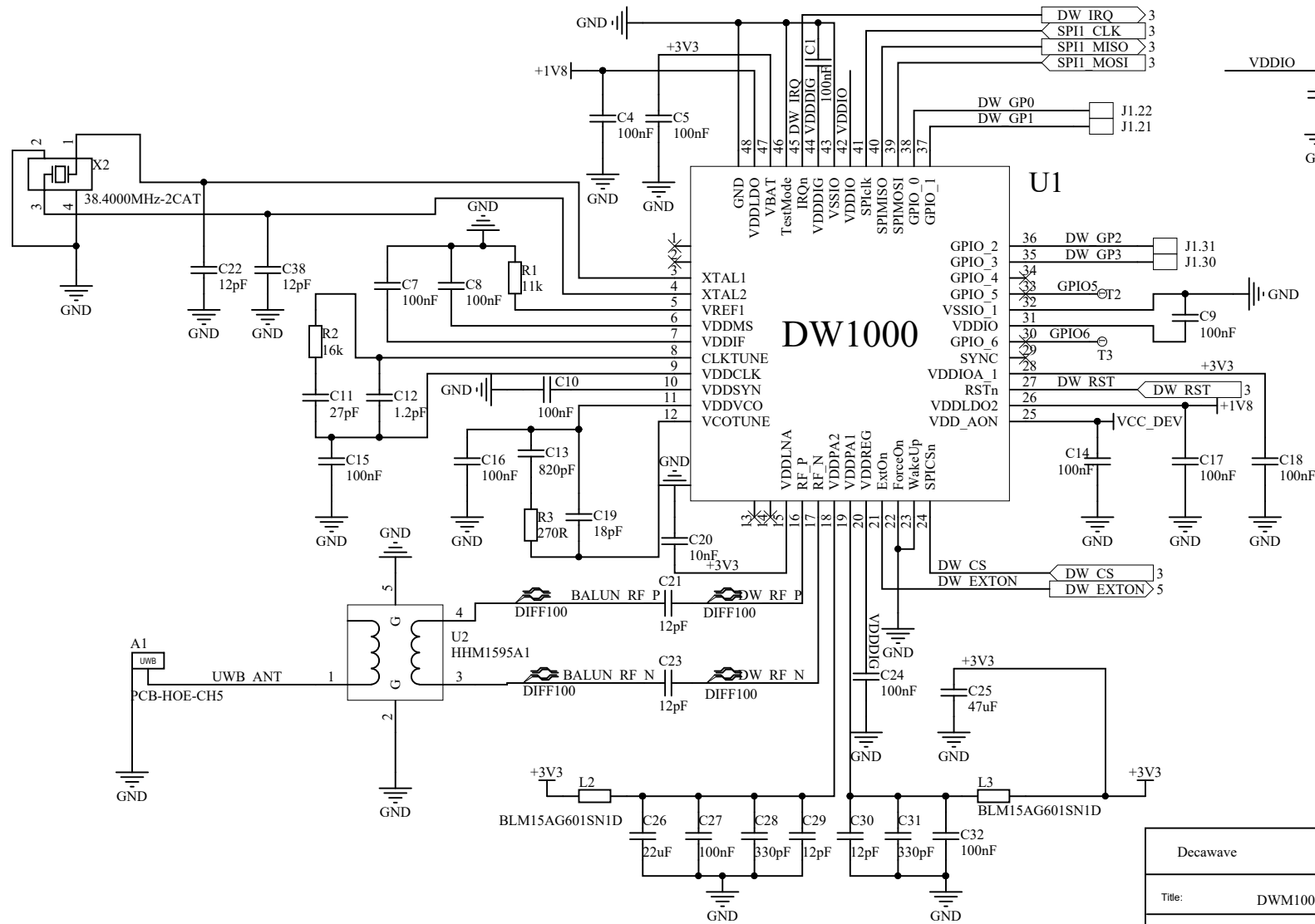
1

2

3

4

DW1000

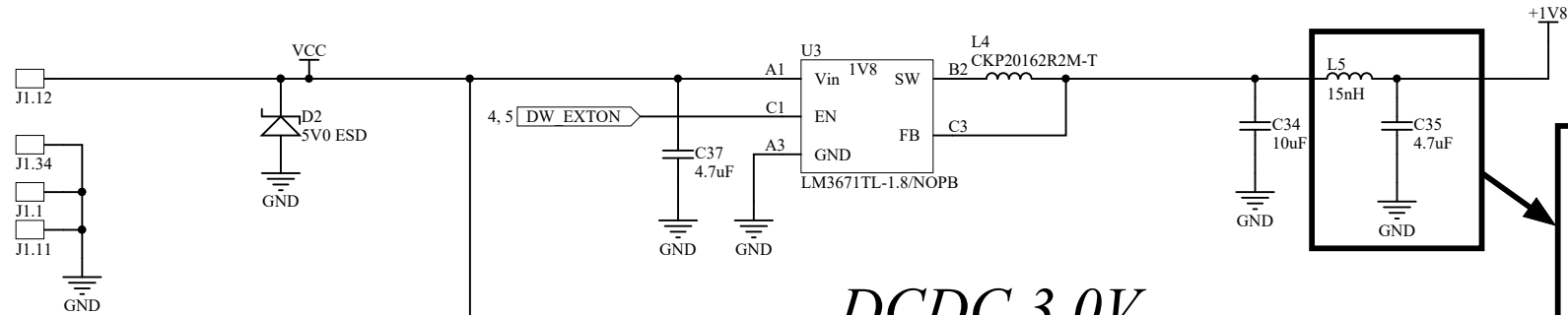


DESIGN NOTE:
Use test point for high voltage OTP programming
Vmin 3.7V Vmax 3.9V

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Title: DWM1001		
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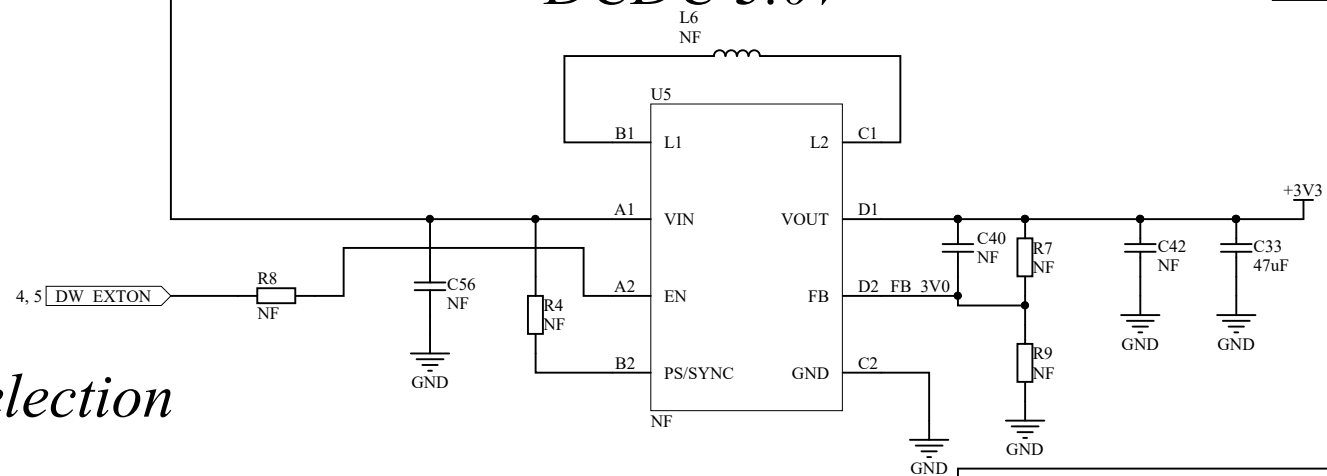
Power supply

DCDC 1.8V

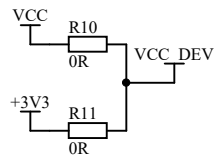


DESIGN NOTE:
 F=2.25Mhz, VconvRipple=60mV,
 VmaxRipple=5mV
<http://www.aimtec.com/site/Aimtec/files/documents/ApplicationNotes/a016e%20-%20reduction%20of%20output%20ripple%20&%20noise.pdf>

DCDC 3.0V



Power supply selection



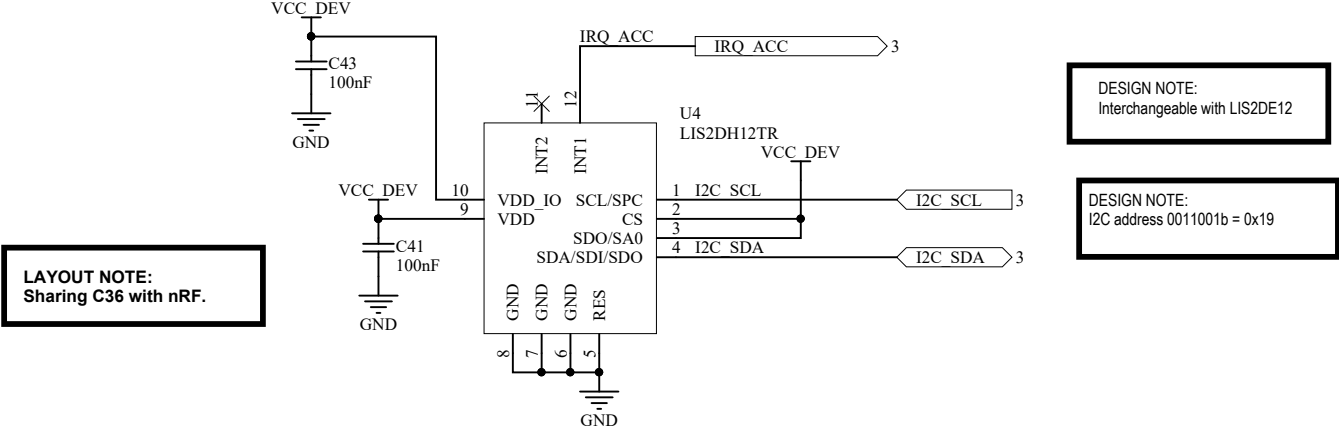
DC-DC 3.3V, U5 is not fitted in production units

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I2C/SPI devices

LIS2DH12

3-Axes Accelerometer



Decawave			
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